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Introductiones in kalendarium magistri Joannis de monteregio studij astronomie restauratoris

[illegible]

Canon primus

[illegible]

Cautela circa hunc modum qui procedit via collectionis servanda

[illegible]

8	[illegible]	[illegible]	2	3	[illegible]
4	20	32	42	17	18
5	14	15	21	13	20

[illegible]

5	23	[illegible]	2	3	[illegible]
11	4	29	3	[illegible]	38

Canon secundus de divisione huius kalendarij et quid in eo docetur generaliter et specialiter et quare kalendarium

[illegible]

[illegible] 1600 [illegible] 21600 [illegible] 1296000 [illegible] 1296000 [illegible] 311040000 [illegible]

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Principium et vocacionis. Sed causa quare vocantur kalende Romani
item cum diuidebantur tem[pora] modo, quemlibet mensem in tres partes
distinguebant scilicet in ydus nonas et kalendas et consuetudo erat eis ut in
principio cuiuslibet mensis forum generale haberent, quia ex homines ad nundinas
venirent primum mensis ignorabant ideo quidam pontifex [illegible] aut locum
altum ascendebat et tot vicibus clamabat kalo quot dies restabant usque
ad diem in quo forum incipiendum erat. Unde a greco dicitur quatere cla-
mabat kalo. scilicet sexta septies clamabat. et post tot dies forum celebrandum
erat Et ideo dicuntur kalende quasi vocationes ad forum Et quia pontifex sepius cla-
mabat kalo, ad istum ergo pluralitatem dicte sunt kalende numero plurali
vel ideo ut dicit Ysidorus dicte sunt kalende quasi colende, quia Romani
primam diem cuiuslibet mensis specialiter celebrabant et colebant, quemadmodum
et adhuc faciunt iudei primam diem coniunctionis solis et lune celebrando tamen
quia agentes deo gratias in exordio et principio mensis deberent et ut feli-
citer usque in finem venirent. Idus inquit Ysidorus plus nomen est in-
flexionis grece sub forma greca. ydus grece dicitur ydibus sunt dies certi in mense
Et dicuntur ydus quasi diuisio Unde in hiis diebus mercatores diuidebant
a nundinis que durabant a nonis usque ad ydus vel ideo ut dicit Ysidorus
dicuntur ab edo a comedo, quia hiis diebus antiqui epulabantur et conuiuiis
sacrificiis insistebant In quibus numinis deum [illegible] magnificabant
None sunt dies in quibus nundine celebrantur Et dicuntur none quasi nouem
A nundinis quia in hiis diebus nundine incipiebant. de hiis tamen
decem inuicem et computantur inferius dicemus.

Canon tercius de diuisione huius kalendarii generali

Et de hiis que generaliter in hoc kalendario continentur Magister Johannes
de monteregio in prologo huius kalendarii tenorem per ordinem ostendit Im-
primis dicitur de hiis que ad usum kalendarii pertinent quia nota sunt
in kalendario dei tenenda ut sunt litere solares. littere dominicales. interualla cicli
ciclus lunaris. festa mobilia. et fixa. impossibilia hystorica [illegible]
aduentus domini, et alia, specialiter tamen subiungit doctrinam de festo pasche ost-
dit quod non recte in celebracione solempnitatis paschalis [illegible] Deinde
[illegible] in hoc kalendario [illegible] consideracionis
est vel de coniunctionibus solis et lune. de medio solis et lune [illegible]
[illegible] et magnitudine et longitudine dierum [illegible]
que spectant ad astronomiam Tercio et ultimo in huius kalendarii [illegible]
de horologii [illegible] in qualibet habitacione [illegible]

De hiis que specialiter hoc kalendarium continet

Et hoc est diuisio specialis huius In prima enim mensis parte ponitur
tabula regionum in qua describuntur loca precipua Europe et
maxime loca notanda ciuitatum et locorum quia tabula notata est
ad videndas coniunctiones solis et lune et oppositiones ad meridianum huius regionis
et huius ciuitatis Coniunctiones enim solis et lune et oppositiones in hoc kalendario
annotate ad meridianum ciuitatis Nurembergensis sunt calculate ad
meridianum ciuitatis Nurembergensis et meridiani ciuitatis differentiam
[illegible] est meridies [illegible] solis et
in toleto in ciuitate hispanie per unam integram horam [illegible]
calculo talis fieri debet [illegible] in sequentibus. Deinde vertendo
cartham regionum Status in prima parte mensis sinistram

Apparet tabula coniunctionum et oppositionum in horis et minutis ad tres ciclos
solares quorum quilibet continet 19 annos. Primus ciclus incipit
ab anno christi 1 4 7 7 secundus ciclus incipit ab anno christi 1
4 9 6. Tercius ciclus incipit ab anno christi 1 5 1 5 quorum horas
et minuta coniunctionum et oppositionum presentabunt in prima riga cuiuslibet
mensis cum anno medio rubeo colore consignata. Et quia in eadem
riga inveniuntur coniunctiones et oppositiones solis et lune in diebus equalibus mediis
tamen. 12. **Deinde in secunda parte illius carte** vbi
dictum manum inveniuntur in prima riga dies omnium mensium ia-
nuarii quot dies equales habet quilibet. Deinde est littera kalendarii
[illegible]. In 3a riga inveniuntur in nativitate domini et kalendarum
In quo spacio inveniuntur festa sanctorum et celebrantur omnium quo die alicuius
mensis talia festa contingunt [illegible] et celebrari. Circa hanc festa
signantur [illegible] et [illegible] festorum mobilium de quibus [illegible]
Post hanc columpna 4a continet motus signorum gradum et minutorum ad [illegible]
[illegible] solis aliquo die cuiuslibet mensis inveniendi [illegible] vt inferius dicetur.
Deinde sequitur columpna quinta continens motum signorum graduum et minutorum
pro motu lune aliquo die alicuius mensis inveniendo. In sexta riga
ponitur motus graduum ad motum capitis et caude draconis aliquo die
inveniendum ordinatur et tali ordine dispositum totum kalendarium per hos
12 menses totius anni [illegible] apparenti et considerandi in kalendario per
12 mensium descripcionem sequuntur eclipses solis et lune. Que vero quo
die alicuius mensis hora eclipsis ostendunt et totalis vel partialis [illegible]
[illegible] tota [illegible] et [illegible] fuerit. Partialis autem [illegible]
[illegible] fuerit. Sequuntur [illegible] eclipses solis et lune secundum eclipsium
durationem horarum et minutorum. Similiter puncta eclipsium [illegible]
solis et lune. Et [illegible] in umbra eius de quibus sufficienter
dicetur inferius. Deinde describitur rota quod ad [illegible] pro-
[illegible] et [illegible] [illegible] Iuli [illegible]
[illegible] et festa mobilia. Et apparet tabella in qua
omni tempore [illegible] inveniuntur. Deinde ponuntur [illegible] canones qui
primus est de tempore coniunctionum et oppositionum solis et lune in
horis et minutis inveniendis super meridianum [illegible] docetur tamen
[illegible] in canone [illegible] coniunctionum et oppositionum solis
et lune ad meridianum aliarum civitatum et regionum. In [illegible]
canone docetur cuiuslibet mensis dies et hora eclipsium solis et lune
[illegible] et quantitas etiam super meridianum [illegible]. docetur [illegible]
reductio solis et lune ad meridianum aliarum civitatum et regionum. In
secundo [illegible] canone ostenditur quod verus motus solis [illegible] [illegible] die
alicuius mensis. In [illegible] canone docetur quod verus motus lune [illegible] in-
veniri die cuiuslibet mensis. In quinto canone ponitur doctrina
quod [illegible] motus capitis et caude draconis aliquo die alicuius mensis.
In sexto canone de magnitudine dierum [illegible] ad quam magnitudinem
inveniendam deseruit tabella post canonem illum descripta. Que nunc titulus est
Tabula quantitatis dierum. Post hec quod horologium orisontale in quo [illegible]
[illegible] fieri docetur magister Iohannes [illegible]. Quomodo ex horologium
equinoctiale et horas temporales inquiri [illegible]. Quomodo etiam horas ex
[illegible] [illegible] et temporales sufficienter docetur. Deinde [illegible] apta [illegible]
[illegible] in quibus signis minutis [illegible] valeat [illegible] quibus [illegible]

Et quia 12 signa celi ad partes temporis in anni sunt relata usque
fine de celebratione loquitur paschali [illegible] quod annis singulis in quibus
vera paschalis festi celebracio ab antiquorum computatorum deviabit
de qua discrepancia tabellam describam in fine. Primum instrumentum [illegible]
subiungitur [illegible] instrumentis est horarum inequalium quo multo [illegible]
[illegible] [illegible] [illegible]. [illegible] instrumentum attinet ad veram motum
lune quottidie [illegible] 3m instrumentum est quadrans [illegible]
[illegible] orizontalis [illegible] et ultimum est quadrans horarum generalium
quorum instrumentorum usus in [illegible] planissime et facillime apparebit
hoc est dictio kalendarii Magistri Johannis de monteregio [illegible] quod
in hoc kalendario continentur [illegible] eorum [illegible] [illegible] in [illegible]

Canon quartus declarans et ostendens quid intelligatur nomine signi gradus minuti 2i 3ii 4ti

Et sic de singulis et quamvis sit circumferencia plana est [illegible] [illegible]
[illegible] celi [illegible] [illegible] [illegible] [illegible] et primo [illegible] et 3o [illegible]
[illegible] est divisibilis in semper divisibilia [illegible] [illegible]
[illegible] sunt [illegible] [illegible] [illegible] a [illegible] et [illegible] vel [illegible]
interrupta [illegible] [illegible] [illegible] [illegible] vel lignum [illegible] [illegible]
[illegible] dr. Constat autem celum esse corpus quoddam [illegible] et
magnum omnia ambiens et continens [illegible] [illegible] [illegible] celi, quod
[illegible] [illegible] [illegible] [illegible] celi [illegible] . [illegible] celi. [illegible] Ptholomeus
[illegible] [illegible] [illegible] [illegible] theologi et religio [illegible] [illegible] quod
[illegible] celum quod astronomi ponunt [illegible] esse [illegible] [illegible]
[illegible] [illegible] et [illegible] [illegible] [illegible] [illegible] quasi [illegible] [illegible]
a [illegible] [illegible] ab eo quod est [illegible] et per ignis [illegible] [illegible]
et [illegible]. [illegible] [illegible] sit [illegible] [illegible] et [illegible] [illegible] sunt
[illegible] [illegible] est divisibile non [illegible] [illegible] et [illegible] [illegible] [illegible]
non est possibile [illegible] [illegible] [illegible] quod [illegible] [illegible] [illegible]. et
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] impressiones
Non est [illegible] [illegible] divisibile [illegible] et [illegible] [illegible] divisibile est [illegible]
[illegible] [illegible] [illegible] quae est 2m [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] est [illegible] stellarum
et [illegible] [illegible] stelle. [illegible] est [illegible] in quo stelle [illegible] [illegible] sunt
[illegible] [illegible] [illegible] possunt ut in [illegible]. [illegible] est [illegible] stelle
[illegible] [illegible] et [illegible] sub terra. [illegible] [illegible] [illegible] [illegible] in 12
partes quae signa appellamus ut sunt ♈ ♉ ♊ ♋ ♌ ♍ ♎ ♏ ♐ ♑ ♒ ♓
usque ad finem [illegible] [illegible] sunt semper supra nos et alia sex infra nos
ut [illegible] docet Ptholomeus in [illegible] almagesti [illegible] [illegible] [illegible]
[illegible] [illegible] celi sub [illegible]. [illegible] autem [illegible] [illegible] [illegible] celi signa
ut [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] signa [illegible] [illegible] [illegible] [illegible] [illegible]
in hoc [illegible] [illegible] [illegible], [illegible] [illegible] signa [illegible] quia
[illegible] [illegible] effectus in hoc [illegible] [illegible] ut astrologi [illegible] [illegible]
[illegible] [illegible]. [illegible] [illegible] signum [illegible] [illegible] in 30 partes [illegible]
quarum pars [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] signi [illegible] ad [illegible] [illegible] in [illegible]. [illegible] [illegible] in [illegible]
[illegible] [illegible] [illegible] et [illegible] motum [illegible] [illegible] planete et
stelle motu suo [illegible] [illegible] [illegible] per gradus signorum et partes
ut [illegible] solem [illegible] esse in primo gradu signi arietis [illegible] [illegible]
[illegible] arietis [illegible] in [illegible] gradu arietis [illegible] in medio; [illegible]
in 30o gradu signi arietis. [illegible] autem [illegible] [illegible] [illegible] [illegible] in 60

[illegible]

Canon Primus de Ciclo Lunari qui et aureus numerus dicitur, quo doceatur inveniri et quare sic dicatur

Inquit Iohannes de Sacrobusto in computo suo [illegible]

Praxis resoluta clarius de Inventione Cicli lunaris

[illegible]

Consideratio pulchra

[illegible]

Consideratio secunda

[illegible]

Canon sextus de ciclo solari et littera dominicali

aliquo anno invenienda. Inquit Johannes de Sacrobusto in computo suo: Ciclus solaris est spacium 28 annorum in quo omnes littere dominicales per omnes modos per ordinem in se redeunt nisi post 28 annos. Prima dicitur ceterum aliarum litterarum de istis a b c d e f g. Littere dominicales tunc in tali ordine non sunt. Iste littera dominicalis nisi post 28 annos ut hic [illegible] invenitur littera dominicalis.

Praxis resoluta de inventione cicli solaris aliquo anno

Cum ciclum solarem aliquo anno scire volueris, primo scias annum [illegible] in quo scire ciclum solarem ad annum domini 1 4 9 1. Inventum [illegible] videre si annus iste ad quem volo scire ciclum solarem sit descriptus in tabella prima et patet quod annus 1 4 9 1 in tabella non est positus. Ideo oportet attendere annum ei viciniorem et [illegible] precedentem in tabella descriptum et est 1 4 1 5 [illegible] annus 1 4 1 5 precedentem et viciniorem ad annum [illegible] ponendo super primo anno in [illegible] cicli solaris [illegible] 28 annum [illegible] 1 4 4 3 ponendo super [illegible] sequentem [illegible] ordine [illegible] singulos annos [illegible] sequentem annum [illegible] 1 4 9 1 veniet directe super numerum 22 patet quod [illegible] ciclus solaris ad annum domini 1 4 9 1 erit 22.

Consideratio prima

Cum ciclum solarem aliquo anno inveneris litteram dominicalem [illegible] sub eodem numero cicli solaris [illegible] ut ad annum domini [illegible] 1 4 9 1 littera dominicalis est a [illegible] sub numero cicli solaris [illegible]

Consideratio 2a

Cum aliquo anno sub ciclo solari due inveniuntur littere dominicales una posita sub alia [illegible] bisextilis [illegible] prima littera dominicalis usque ad festum Sancti Mathie alia vero totum annum [illegible]

Canon 7mus de indictione invenienda quotus sit annus indictionis

Inquit Johannes de Sacrobusto in computo suo: Indictio est spacium 15 annorum ad comprehendenda [illegible] tributa ab exteris gentibus in [illegible] Romanis [illegible] institutis [illegible] Romani [illegible] et maxime [illegible] annum [illegible] ut stipendia darent militibus [illegible] in fine [illegible] quarti anni [illegible] augentium in tributo et [illegible] in quinto [illegible] ut [illegible] et victualia [illegible] in fine [illegible] quinti [illegible] et [illegible] tributum [illegible] dabant [illegible] quindecim annorum et maxime [illegible] et inde tempora [illegible] indictio dicebatur [illegible] annus de illis quindecim [illegible] quartus indictio dicebatur. Servaverunt [illegible] Romani [illegible] privilegiis [illegible] aliquod [illegible] annum indictionis [illegible] memoria laberetur [illegible] in suis scriptis observat.

Praxis resoluta exemplaris de anno indictionis inveniendo

Primo [illegible] annum [illegible] inveneris. Ut si scire [illegible] et in anno domini 1 4 9 1 [illegible] tabelle indictionis [illegible] annus [illegible] annus [illegible] indictionis [illegible] in tabella indictionis [illegible] et illius [illegible] annum viciniorem in tabella indictionis [illegible] ponas super 8 et [illegible] ad annum [illegible] indictionem [illegible] ad annum domini [illegible] in tabella indictionis pono 1 4 9 [illegible] et 1 4 7 0 super 8 [illegible] usque ad annum 1 4 9 1 [illegible] annus [illegible] quod est duodecimus annus indictionis.

Canon octavus de intervallo inveniendo

Inquit magister Johannes de Sacrobusto: Intervallum est spacium temporis quod est a [illegible] usque ad [illegible] Cum autem [illegible] intervallum [illegible] dies [illegible] dies [illegible] ad festum [illegible] intervallum ad minimum sit 7 [illegible] ad maximum 6

Canon inventionis intervalli

[illegible]

Consideratio prima

[illegible]

Consideratio 2a

[illegible]

Consideratio tercia

[illegible]

Consideratio sexta

[illegible]

Altera pars huius kalendarii est de hiis que ad astronomie spectant studium inter que ponitur de coniunctione solis et lune canon occurrit

[illegible]

Consideratio secunda

[illegible]

[illegible]

Canon primus de coniunctione Solis et Lune quo die alicuius mensis contingunt inquirendo

[illegible]

Consideratio prima

[illegible]

Consideratio secunda

[illegible]

Consideratio tercia

[illegible]

Augusten[ses] Ianuenses [illegible] [illegible], quia non tempus coniunctionis aut opposi[tionis]
designatum in propriis locis praedictis conditionum impressiones nullo modo
haberi potuerunt. **Consideratio 4ta** Coniunctiones
et oppositiones solis et lune in horis et minutis calculationum et tempora
ad meridianum civitatis Nurembergensis sunt calculata. Tunc quia
magister Io. in urbe habitabat Nurembergensi. Cum vero ad aliam
locum et civitatem aliquam coniunctionem aut [illegible] reducere volueris
in tabellam regionum in primo kalendarii scitam inquiras, et quot
minuta eiusdem in horis et minutis inveneris adde vel subtrahe secundum quod
titulus indicat ad coniunctionem aut oppositionem supra quod a meridiano
Nurembergensi ex kalendario prius invenisti. Et sic ad tuum meridianum
tuum et locum coniunctionis et oppositionis tempus in horis et minutis
habebis reductum. **Consideratio quinta** Si in loco aliquo
vel in civitate aliqua habitares que in tabella regionum
signata non fuerit, ad locum viciniorem tue habitationi aut civitati re-
currere, quia tunc aut nulla vel [illegible] differentia [illegible] invenietur.
Consideratio sexta Cum aliquod tempus coniunctionis aut
oppositionis reducere volueris ad tuum meridianum vel addendum fuerit, et
minuta 60 aut plura sic addendo excreverint, pro 60 minutis sub-
trahis unam horam adde ad horas, 60 enim minuta horam conficiunt.
Et cum 24 horas aut plures sic addendo excreverint, unum diem adde
ad dies prius inventos, quia 24 horae diem constituunt. **Conside-
ratio 7ma** Si aliquando accidit quod in reducendo tempus
coniunctionis aut oppositionis super Nurembergense inventum subtrahendo minuta
fuerit, et minuta eius a minutis subtrahere non possis, aliter et ac-
commodare unam horam, et tunc in 60 resolve minuta et a toto ag-
gregato prius fiet subtractio. Et cum horas plures a precedentibus
subtrahere non poteris, accommodare unum diem scilicet, et tunc in 24
resolve horas, et a toto aggregato subtrahendum aliter fieret. **Con-
sideratio ultima** Coniunctio in aliquo mense inventa
non est illius in cuius diebus invenitur, sed potius est sequentis.
Coniunctio pro februario mense in diebus Ianuarii et quartum Marcii
[illegible] in diebus februarii. Oppositiones autem solis et lune aliquando
inveniuntur in illis diebus cum est oppositio calculando aut non, et
hoc [illegible] [illegible] et [illegible] oppositionis a die coniunctionis [illegible]
[illegible] [illegible] ad oppositionem sunt 14 dies et 18 minuta [illegible] [illegible]
[illegible] [illegible] [illegible] **Canon secundus de Ecli-
psi solis et lune determinans et de hiis que
circa eclipses contingere sunt. Consideratio prima**
Eclipsis generalis lune [illegible] sunt defectus. In eclipsi enim solis [illegible] [illegible]
et defectus a lumine quo ad aspectum [illegible]. [illegible] in eclipsi lune luna deficit
in lumine quod luna non illustratur a sole. Causatur autem eclipsis solis et lune
sit quando sol [illegible] in nodis eclipticis aut [illegible] hoc est in capite aut
cauda draconis sine latitudine et luna sub luna interponitur inter solem
et aspectum nostrum radius solis non potest [illegible] in regionibus nostris. Causatur
autem eclipsis lune quando sol et luna opposita in nodis eclipticis aut [illegible]
sine latitudine et terra media inter solem et lunam est impediens et
prohibens ne radius solis cadat in lunam. Est enim differentia
inter eclipsim solis et lune, cum enim fit eclipsis solis non fit in
universo mundo sed contingit ad certam regionem tantum. Unde et
[illegible] hec eclipsis solis in passione domini non fuit naturalis sed preter [illegible]

eo quod fuit in toto mundo et quamvis tenent theologi licet aliqui dicunt quod hec eclipsis fuit in Iudea et in regionibus vicinis unde et dionisius qui tunc temporis in athenis ut testatur in quadam epistola ad policarpum [illegible] videns hanc eclipsim dicit aut deus nature patitur aut tota machina mundi dissolvetur. Eclipsis autem lune non fit totalis apparet in universo [illegible] licet non in eadem hora omnibus hominibus in terra habitantibus apparent sed in diversis ut hec lucius in summa docent astronomie

Canon de eclipsi solis et lune inveniendo

[illegible] fit et quanta eius duracio [illegible] volueris an aliquando eclipsis solis et lune fit [illegible] anni christi [illegible] primo in [illegible] anno christi ad [illegible] [illegible] eclipsium ingredere [illegible] hunc annum [illegible] in sequentibus eclipsium inveniens in eodem anno eclipsim solis aut lune futuram esse [illegible] aliquam esse [illegible] mensem in quo [illegible] et diem mensis et horas dies [illegible] a meridie computando illius diei ad meridianum Norembergensem inveniens.

Considera prima

[illegible] eclipsis [illegible] eclipsis signatum [illegible] invenies Cum enim tales [illegible] solis aut lune [illegible] fuit eclipsis totalis [illegible] aut [illegible] eclipsata invenies que [illegible] eclipsis [illegible] Cum enim eclipsis [illegible] punctorum [illegible] due partes de [illegible] solis aut lune [illegible] aut sol [illegible] eclipsata signata fuerint [illegible] observabitur [illegible] in comparacione punctorum eclipticorum ad [illegible] eclipsata sunt xii [illegible] solis aut lune [illegible] [illegible] eclipsis solis [illegible] digiti eclipsati [illegible] eclipsata digiti eclipsati [illegible] de diametro solis et lune eclipsatur

Consideracio 2a

[illegible] eclipsis signata [illegible] tempore in eclipsi dimidia mora [illegible] eclipsis [illegible] duracio eclipsis [illegible] [illegible] ab inicio eclipsis usque ad medium eclipsis / aut tempus a medio eclipsis usque in finem unde [illegible] dimidia duracio a medio eclipsis [illegible] eclipsis [illegible] duracio ad medium eclipsis addita fuit finis eclipsis [illegible]

Consideracio 2a

[illegible] in eclipsi solis et lune [illegible] [illegible] eclipsabitur [illegible] [illegible] pars superior eclipsabitur. [illegible] [illegible] eclipsis totalis in luna [illegible]

Consideracio ultima

Cum eclipsim aliquam [illegible] [illegible] in tabellam [illegible] ingrediens [illegible] invenies [illegible] [illegible] [illegible] aut [illegible] meridiani [illegible] ad tempus eclipsis [illegible] Norembergensem [illegible] [illegible] eclipsim in horis [illegible]

Canon tercius de vero motu solis inveniendo

Cum verum motum solis aliquo [illegible] [illegible] verum motum solis [illegible] [illegible] tabella [illegible] solis [illegible] [illegible] motus solis [illegible] [illegible] motum solis [illegible] [illegible] [illegible] [illegible] [illegible] verum motum solis ad [illegible]

6

Consideracio prima In anno cum post diem sancti
Mathie usque ad finem anni ex additione minutorum facta unum gradum
semper subtrahes a gradibus inventis. et quod post subtractionem
remanserit verus motus solis ad tempus propositum dicitur erit Con
sideracio 2a Quoniam in meridianorum distancia additur vel sub
trahitur [illegible]. nullus tamen error restat. hec tamen materia est. [illegible]
[illegible] quod parum differt medium differre [illegible]

Canon quartus de vero motu lune quolibet die in xii signis zodiaci inveniendo

Cum verum motum lune aliquo die scire volueris, aliquem [illegible]
scire oportet. Primum oportet instrumentum lunare quod cognoscere. quod instru-
mentum rotula motus lune appellatur [illegible] quaterno [illegible] opu-
suli descriptum aspicies, in quo instrumento et rotula si diligenciam [illegible]
ingeres primo zodiacum in signorum 12 cum suis [illegible]
descriptum aspicies, unde quodlibet signorum in tabula descriptum
et zodiaco in 30 gradus est divisum in superiori rotundis inveniens
[illegible] in singulorum graduum [illegible] est [illegible], sed
[illegible] semper duobus gradibus [illegible] Post [illegible] lune
[illegible] zodiacum descriptum invenies, quod [illegible] continet. ut ad
[illegible] apparet. Inde [illegible] sunt due rotule [illegible] duobus [illegible]
[illegible] in [illegible] possis [illegible] [illegible] in tabella [illegible]
[illegible] lune [illegible] annos christi [illegible] aspiciuntur. Primus [illegible]
signa [illegible] aut gradus signorum [illegible] Secundo [illegible] rotula aut instru-
menti lunaris [illegible] et quid contineat. Radices lune et rotule [illegible]
sunt [illegible] aut [illegible], [illegible] in [illegible]
[illegible] Prima rotulam [illegible]
[illegible] tabella radicum lune [illegible]
christi [illegible] in signis et gradibus consideres. et [illegible]
in signis [illegible] in gradibus [illegible]
computata a [illegible] signo [illegible] signo [illegible]
[illegible] quod inveneris et opposito [illegible]
Computacionem signorum completa [illegible] gradus et opposito [illegible]
[illegible] in zodiaco instrumenti [illegible] signa computata, Et ubi [illegible] in signis
et gradibus [illegible] sub illo gradu [illegible]
rotulam [illegible] rotula [illegible], Et [illegible]
[illegible] medii motus lune [illegible]
rotulam [illegible] ad tabellam radicum lune [illegible]
[illegible] christi in signis et gradibus [illegible]
[illegible] in signis [illegible]
[illegible] tabella [illegible]
[illegible] lune [illegible] computata [illegible] in signis et gradibus
[illegible] sub illo gradu [illegible] rotula
[illegible] rotula [illegible]
[illegible] addenda vel
[illegible] et [illegible]
[illegible] medio motu lune [illegible] ad anno [illegible] 1493
[illegible] lune [illegible] tabellam radicum lune et [illegible]
[illegible] et 18 gradus in 18 gradu geminorum et ibi [illegible]
[illegible] medium motum lune [illegible] in toto anno et ibi [illegible]
[illegible] rotula [illegible] sub 18 gradu signi geminorum [illegible]
ibi [illegible] medii motus lune [illegible] Et [illegible] rotu
lam [illegible] et [illegible] anno christi [illegible] 1493

Ad tabellam medii lune / et accipe in opposito illius [illegible]

[illegible]

Continuacio canonis de vero motu lune per instrumentum lunare inveniendo quolibet die anni

Cum aliquis [illegible] lune in [illegible] [illegible]

[illegible]

Ad medium motum lune parum invenire ... ad 11 gradus signi 8. vel
[illegible] ... quod ad dictum ... [illegible] ... vera
motus lune erit 23 gradus signi ... ad [illegible]

Consideratio prima ... rotule et instrumenti
... que est a linea ducta vel imaginata a puncto V. ... centrum
... ad oppositum signi lune et in [illegible] ... rotule vel
instrumenti ... que in ... opposite descendit ... pars
... superiorem rotule ... minus. quod ... [illegible]
in superiori parte invenitur ... a vero motu ... verus. est
subtrahenda ... linea inferiorem ... rotule ... addenda ...
ad medium motum ut verus motus lune ... die habentur **Con**

sideratio 2a ... motus lune in almanach ... in rotula ... quia
... lune ... resolute invenitur in rotula ... motus ...
in [illegible] veri motus lune in almanach ... quem ... omittit
[illegible] tabularum ... medium ... verum lune
... tabularum ... omittitur. Non dz ... minui si
... que ... omittit ... rotulam ... instrumentum ...
motus ... lune in almanach ...
... de motu lune ... insufficientem
... motus planetarum calculatus ex tabellis est multo ...
... instrumenta ... instrumentum ... [illegible]
... 2a ... [illegible]

Consideratio 3a Omnis motus planetarum ...
... astronomie ad meridiem ... planetarum
... meridie ...
... planete ... constat
... [illegible]
... 3a ...

Consideratio 4a ... rotule lune ... ad principium
... decembris ... ad ... decembris
... novum anni in illa ...
... rotule ... signi ... et omnis
... arietis ... est
motus planetarum ... in puncto arietis
... libra sunt
... [illegible]
... [illegible]

Canon quintus de vero motu capitis draconis

inveniendo ... intelligentia ... quod ...

Consideratio 1a ... caput et cauda ... possunt
... in ...
... quod et ad ... in ...
... solis et lune ...
de motu solis et lune ... caput draconis et cauda dra
conis ... caput ... alba

Consideratio secunda ... caput et cauda dicuntur draconis
... draconis ... caput et cauda
... signum
... et ... in ... ad hac
... appellantur **Pra**

xis de vero motu capitis draconis inveniendo
Cum ... motum capitis draconis ... rubricis
capitis draconis ...
anno 1499 ... capitis draconis est 2 signorum ... gradus

Secundo pro alio illius diei ad quem verum motum capitis draconis inquirere velis. Medium motum capitis draconis in kalendario signatum accipe, ut pro anno [illegible] s. Johannis bapt. invenies in ultima columna .10. gradus [illegible] gradus in kalendario sub motu capitis draconis inveniuntur adde ad gradus inventos. Et per additionem veniet verus motus capitis draconis ad diem propositum, ut in exemplo ad diem s. Johannis bapt. veniunt .2. signa .23. gradus. Scito in quo signo et gradu verus motus reperiatur capitis draconis, in signo opposito et consimili gradu invenitur verus motus caude draconis.

Canon sextus de magnitudine diei artificialis invenienda

Consideratio prima

Dies est duplex naturalis et artificialis. Dies naturalis est spatium 24 horarum in quibus revolvitur totum celum ab oriente in occidentem et iterum redit in orientem. Dies vero artificialis est spatium temporis ab ortu solis usque ad occasum. Dies itaque naturales sunt equales. Dies artificiales aut inequales. Nam estate sunt dies artificiales longiores quam hieme aut breves. Dies enim artificialis in estate continet 16 horas et fere 8 minuta. In hieme vero 8 horas et 8 fere minuta. In kalendario isto queritur magnitudo diei artificialis et non naturalis.

Praxis de magnitudine diei invenienda

Cum magnitudinem diei artificialis inquirere volueris, primo verum motum solis ad illum diem inquires. Quo habito vade cum vero motu solis illius diei sub [illegible] tabulam signatam [illegible] in horis et minutis [illegible] sub [illegible] in regione [illegible] et signum cum quo intrasti [illegible] aut [illegible] ut ♈ ♉ ♊ ♋ et aut [illegible] in horis et minutis tempus medie diei [illegible] in linea de [illegible] signum [illegible] meridionalibus fuerit ut ♎ [illegible] ♑ aut ♓ [illegible] in horis et minutis tempus medie noctis [illegible] in linea diei [illegible]. [illegible] tempus [illegible] a 12 horis subtrahe et manebit tempus semidiurnum [illegible] diei ad quod quantitatem diei artificialis inquiris. Sexto hoc tempus semidiurnum duplica et habebis totam quantitatem diei artificialis [illegible]. Septimo si totum tempus diei a 24 horis subtraxeris [illegible] habebis totum tempus nocturnum ad illum diem [illegible]. Octavo si tempus diei totum [illegible] noctis totum ad diem [illegible] sunt [illegible] 24 horas totum diem naturalem [illegible].

Consideratio prima

[illegible] gradus solis [illegible] inveniuntur [illegible] in [illegible] tabula aut [illegible] tabula [illegible] et in aliis tabulis astronomicis [illegible] 1489 [illegible] ad diem s. Michaelis [illegible] quantitatem diei artificialis [illegible] solis [illegible] ad diem s. Michaelis [illegible] 1489 [illegible] et est [illegible] gradu .2. [illegible] signum [illegible]. [illegible] itaque cum motu solis in [illegible] tabula [illegible] sub [illegible] 48 [illegible] horas .5. minuta 26 et [illegible] tempus semidiurnum [illegible] noctis [illegible] tempus semidiurnum [illegible] a 12 horis subtrahe [illegible] tempus [illegible] ad diem [illegible] 7 horas [illegible] minuta [illegible]. Cum tempus semidiurnum duplicaveris [illegible] 11 hore 8 minuta. Cum [illegible] tempus [illegible] a 24 horis subtraxeris manebit totum tempus nocturnum [illegible] in die s. Michaelis 12 hore 52 minuta. [illegible] tempus [illegible] simul [illegible] 24 horas [illegible].

Consideratio ultima

[illegible] semidiurnum tempus [illegible] diei semidiurni [illegible] meridiem [illegible] noctis [illegible] solis [illegible]

In fine kalendarii ad complementum huius

Opusculum magistri Iohannes [illegible] ondit [illegible] ondit [illegible]
[illegible] quedam sunt ignea, quedam terrea, quedam aerea, et quedam aquea
Signa calida et sicca sunt, terrea frigida et sicca. Aerea frigida [illegible]
da et humida. Aquea frigida et humida. Ostendit etiam [illegible] et corpus
hominis quodlibet signum aspicit ut [illegible] [illegible] [illegible] tamen
[illegible] signa sunt apta flebotomie et venacioni [illegible], et quedam [illegible]
[illegible] et quedam [illegible] [illegible] [illegible] ostendit [illegible]
ut [illegible] et [illegible] sunt [illegible] In fine kung

Opusculum magistri [illegible] [illegible] [illegible] et celebrandi [illegible]
[illegible] solemnitatem [illegible] [illegible] et [illegible] [illegible] [illegible] [illegible]
in tabella [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
primi mensis [illegible] [illegible] [illegible] pascha celebrari [illegible] in [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] et [illegible] oppositum primi
mensis [illegible] [illegible] pascha est [illegible] [illegible] [illegible] [illegible] ecclesia
pascha [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] est [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] in tabula in celebracione pasche [illegible] [illegible]
et [illegible] [illegible] est [illegible] 37 [illegible] [illegible] [illegible] ut in tabula
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] pascha celebrantes [illegible] [illegible] in celebracione [illegible]
pasche [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
ipsi pascha celebrabant Consideracio [illegible] [illegible] [illegible] [illegible]
pascha [illegible] [illegible] et ut [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] celebracionem pasche [illegible] [illegible] et [illegible]
[illegible] die marcii [illegible] [illegible] 13 [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] 21 die mar
[illegible] [illegible] [illegible] [illegible] 38 [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] 25 marcii [illegible]
ad [illegible] Consideracio attendenda [illegible] [illegible] [illegible] pasche
[illegible] [illegible] et [illegible] [illegible] [illegible] magister Iohannes [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] 37 [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] tabulas

Et in canon itaque ultimo magistri Iohannes et precipue ostendit primum de celebritate pasche iuxta decreta patrum hec est contra legem mosaicam [illegible]

[illegible] [illegible] [illegible] [illegible] ut pascha celebraretur [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible] pascha hec est [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] in mar [illegible] [illegible]
[illegible] in [illegible] [illegible] [illegible] [illegible] est [illegible] ut in oppositum
mensis [illegible] [illegible] [illegible] pascha celebrarent. [illegible] [illegible]
[illegible] [illegible] [illegible] mensis apud [illegible] [illegible] [illegible] [illegible] est
[illegible] [illegible] [illegible] hoc est [illegible] et oppositio [illegible]
[illegible] est [illegible] [illegible] et [illegible] [illegible] pascha [illegible] celebrare
[illegible] [illegible] et [illegible] [illegible] in oppositum [illegible] [illegible] est [illegible] [illegible]
est [illegible] [illegible] [illegible]. [illegible] [illegible] [illegible] [illegible] pascha [illegible]
[illegible] [illegible] [illegible] Item [illegible] magister Io. in fine kung [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] et [illegible] [illegible]
[illegible] [illegible] [illegible] ut [illegible] [illegible] fuit in 16 die Marcii in
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] die Marcii [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] et [illegible] [illegible] [illegible] die Marcii hec est die sancti Gregorii
[illegible] [illegible] [illegible] [illegible] [illegible] magister [illegible] [illegible] [illegible]

Secundo nota est adequatio dierum. Unde et contingere potest temporibus futuris quod ad diem festum quem dici Marcij in marcio [illegible] [illegible] [illegible] magister Iohannes [illegible] in canone [illegible] annus solaris [illegible] quam usum ecclesie [illegible] 365 [illegible] [illegible] [illegible] annum solarem quem astronomi [illegible] alphonsi [illegible] 365 dierum et horarum [illegible] minutorum [illegible] in 11 minutis [illegible] anno [illegible] [illegible] [illegible] [illegible] in 11 minutis in [illegible] annis [illegible] minuta in [illegible] annis [illegible] minuta in 7 annis 77 minuta in 6 annis 66 minuta [illegible] una hora integra et [illegible] [illegible] 56 minuta [illegible]

Pro intellectu huius rei ut iunioribus omnis dubietas abscindatur et quid sit annus solaris secundum astronomos et quid annus secundum computum usum ecclesie et quo annus solaris secundum usum ecclesie maior est anno solari secundum astronomos in 11 minutis [illegible] in [illegible] almagesti dicitur 3a [illegible] annus solis est tempus quo [illegible] motus solis a tempore ad tempus [illegible] ab equinoctio ad equinoctium, a tropico ad tropicum [illegible] [illegible] in [illegible] cancri [illegible] equinoctio [illegible] [illegible] in 5 [illegible] [illegible] [illegible] [illegible] annus [illegible] solaris est [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] ad [illegible] [illegible] annum quantitas [illegible] est 365 [illegible] [illegible] 6 horarum [illegible] quantitas [illegible] secundum usum [illegible] [illegible] [illegible] [illegible] [illegible] apud [illegible] diversa [illegible] assignatur quantitas [illegible] albategni [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] et assignat [illegible] [illegible] est aliquis motus [illegible] [illegible] [illegible] [illegible] [illegible] huius variationis est causa, et [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] in 5 [illegible] [illegible] [illegible] [illegible] [illegible]

		d	h	m	2a
Quantitas anni secundum	Ptolomeum	365	5	55	12
	Albategni	365	5	46	24
	Alfonsum	365	5	49	16
	Thebith	365	6	9	12

Computacio littere Thebith in anno [illegible] est communis et vulgares alphonsi [illegible] [illegible] [illegible] [illegible] [illegible] quantitas anni secundum Thebith [illegible] [illegible] [illegible] [illegible] quantitas anni solaris secundum [illegible] alphonsi in 11 minutis et hic [illegible] in [illegible]

Tertium quod in isto canone dicitur. Quod quantitas et oppositiones solis et lune non [illegible] [illegible] in [illegible] [illegible] [illegible] est [illegible] 19 annorum in [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] 19 annos [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] solis et lune 56 horis [illegible] solis [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

In fine magister Iohannes concludit [illegible] [illegible] est [illegible]

Capitulum 2m huius est de composicione horarij

Orizon[ta]lis ad cuius canonis intelligentia po

[illegible] quid est orizon [illegible] cum sol aut alia stella attingit [illegible] super terram et hemis[illegible] [illegible] orizon [illegible] alii ut Campanus [illegible] quod orizon est circulus qui apparet [illegible] stans in plano [illegible] in quo celum et terra videntur se tangere [illegible] variatur aut orizon [illegible] ad orientem [illegible] sol et ceterae stelle [illegible] in Tholetho in Hyspania [illegible] Campanus [illegible] Tholeto [illegible]

Horalogium aut orizontale

est instrumentum [illegible] solis meridiani [illegible] hora meridiei [illegible] per meridiem [illegible] horalogium [illegible] orizontale [illegible] [illegible]

Cono

[illegible] Canon magistri [illegible] horalogii horizontalis [illegible] Prima [illegible]

Consio za

[illegible] umbra solis [illegible] in horalogio orizontali [illegible]

Considao za

[illegible] plana [illegible] in [illegible] circuli [illegible]

Canon ad horalegii orizontalis compositionem

[illegible]

vii km

[illegible]

vii zm

[illegible]

vii crum

[illegible]

vii tum

[illegible] meridiem [illegible] et alia [illegible] post meridiem

vii om

[illegible] meridiem [illegible]

viiii im

[illegible]

vm sm

[illegible]

quadrantis habebis distanciam utriusque hore a meridie **VIII IXIII**
Hanc distanciam per circinum captam trahes et transfer ad se-
micirculum horalogii futuri. Unum pedem circini immobilem po-
nendo in extremo puncto hore xij. alterum pedem circini in circu-
lo [illegible] semicirculi extendes [illegible] punctus

VIII XIII [illegible] sic [illegible] horas

ante meridiem, similiter post meridiem procede

VIII [illegible] horarum linearum [illegible]

XIII [illegible] ad lineam hore sexte [illegible] distanciam circuli

horarum a meridie [illegible] semicirculum [illegible] quadrantis

VIII IXIII Hanc distanciam transfer ad circumferenciam horarum
[illegible] punctis circini ut immobilem ponendo ad [illegible]
hore xij. alium pedem extendendo ad [illegible] factum. et [illegible]
[illegible] lineas rectas ad centrum horalogii [illegible]
[illegible] horas formando **XXVI XIIII**. [illegible]
[illegible] linea horarum [illegible] ponendo [illegible]
[illegible] super lineam hore [illegible] et accipias distanciam
[illegible] horarum a meridie [illegible] semicirculum [illegible] quadranti

VIII XIIII. Hanc distanciam transfer ad circumferenciam. factis [illegible]
duobus punctis unum pedem circini ut immobilem ponendo ad [illegible]
hore xij. et alium pedem ut mobilem extendendo ad [illegible]
et ipsos [illegible] per lineas rectas ad centrum horarum [illegible]
[illegible] hore linea. similiter [illegible] hore [illegible] linea [illegible]
[illegible] horarum [illegible]

VIII IXIII In [illegible] plures [illegible] horas [illegible]

VIII XVIII [illegible] et [illegible] distancia [illegible] hore [illegible]
[illegible] horalogii [illegible] est [illegible] circini hanc [illegible]
[illegible] per pedem mobilem duobus punctis et ipsis copulatis [illegible] circini
in centro per lineas rectas [illegible] horarum [illegible] meridiem
sinistra hora una post meridiem [illegible] **VIII XVII** [illegible]
[illegible] et [illegible] hore in circumferencia horalogii
[illegible] est [illegible] circini hanc [illegible] per pedem mobilem
duobus punctis et ipsis copulatis cum centro [illegible] lineas rectas
[illegible] horarum [illegible] ante meridiem. sinistra hora una post meridiem [illegible]

VIII XVIII hora una post meridiem est [illegible] hore [illegible]
[illegible] Et linea hore due post meridiem est [illegible] hore [illegible]
[illegible] meridiem. Et linea hore [illegible] ante meridiem est [illegible] opposito hore
[illegible] linee post meridiem. Et linea hore [illegible] ante meridiem
est [illegible] hore quarte post meridiem **VIII XIX**.
Cum [illegible] lineas [illegible] horarum in [illegible] duobus [illegible]
[illegible] ante meridiem [illegible] ante meridiem [illegible] post
meridiem [illegible] post meridiem. Pone [illegible] super horas [illegible]
[illegible] lineas per centrum [illegible] sub [illegible] circuli [illegible]
[illegible] in [illegible] est [illegible]

VIII XX Cum [illegible] lineas horarum [illegible] circumferenciam
[illegible] quod [illegible] sic [illegible] Pone filum quadrantis ad ele-
vacionem poli in tua regione [illegible] in cir-
cumferencia instrumenti et apparebit tibi angulus [illegible] triangulus [illegible]
[illegible] et [illegible] est in loco ubi filum est [illegible]
[illegible] et circumferenciam [illegible] quadrantis [illegible] quod [illegible]
[illegible] est ut [illegible] et [illegible]
[illegible] et applica [illegible] instrumenti [illegible] in centro horarum
super [illegible] superficiei [illegible] triangulum [illegible] super planum
horarum hore xij. [illegible] **VIII XXI** [illegible]
non [illegible] et [illegible] ut [illegible]
[illegible] et [illegible] ad [illegible]
in [illegible] per [illegible] centri [illegible] tibi [illegible]
[illegible] **VIII XXII** Cum [illegible]
super lineam [illegible] [illegible] sequentis
hora

Si aut ad medium spacium medietatem hore elapse aut. Si aut ad quartam partem quartam partem hore elapse aut. Et hec [illegible] volumus [illegible]

Verbum xxiiij Canonis presentis de fabrica horalogii orizontalis [illegible] [illegible] ad partem [illegible] est intendimus

Canon de locacione et posicione horalogii orizontalis

Verbum primum locacio et posicio horalogii orizontalis [illegible] meridiane [illegible] supponit [illegible] regionibus variatur [illegible] semper est [illegible] sol [illegible] ad latitudinem [illegible] applicatur

Verbum 2m Linea meridiana [illegible] aliquo plano [illegible] est [illegible] circulum [illegible] [illegible] quod [illegible] a centro [illegible] a circumferencia circuli [illegible] a centro [illegible] in circumferencia

Verbum 3m Stilus est [illegible] tante longitudinis ut umbra [illegible] in meridie [illegible] umbra [illegible] solis [illegible] sol est altior et ad meridiem [illegible] [illegible] sol [illegible] umbra [illegible] est longior [illegible]

Verbum 4m Ad lineam meridianam [illegible] umbras solis [illegible] ante meridiem et alia post meridiem [illegible] meridiana [illegible] sol usque meridiem [illegible] meridiana [illegible] sol a meridie [illegible] circumferencia circuli [illegible] et [illegible] appliceatur [illegible] umbre [illegible] signari duo puncta in umbra [illegible]

Verbum 5um Cum [illegible] duo puncta signata [illegible] spacium [illegible] puncta [illegible] umbre [illegible] partes equales [illegible] [illegible] puncto [illegible] linea [illegible] in longum et in [illegible] circuli [illegible] linea [illegible] horalogii

Verbum 6m In [illegible] horalogii orizontalis [illegible] semicirculus [illegible] ut ad [illegible] linea [illegible] meridiana [illegible] sol [illegible] umbra [illegible] sol [illegible] horas [illegible]

Verbum 7m Cum horarum [illegible] magni [illegible] orizontalis [illegible] [illegible] a lineis horarum in [illegible] semicirculo [illegible] lineas [illegible] circuli [illegible] appareat [illegible] lineas [illegible] a puncto [illegible] usque ad circumferenciam magni circuli

Verbum 8m [illegible] horarum quod [illegible] plano [illegible] est ad partem [illegible] semicirculi in quo hore signate sunt [illegible] horarum usque [illegible] linea meridiana [illegible] meridiem [illegible] circuli [illegible] umbre [illegible] sol [illegible] meridiem in circumferencia circuli [illegible] sol [illegible] a meridie [illegible] lineam a centro circuli [illegible] linearum meridiane

Verbum 9m [illegible] umbra [illegible] ad circumferenciam circuli et [illegible] hore [illegible] signare

Verbum 10 et ultimum [illegible] et una linea meridiana [illegible] est superficia [illegible] [illegible] in superficie [illegible] canonis hoc [illegible] complementum [illegible] in plano [illegible] horarum [illegible] linea meridiana [illegible] usque circulum [illegible] horarum [illegible] hore meridiane

Canon de horis temporalibus

Verbum primum

Canon iste vera generali primo ostendit quod hore a meridie ut media nocte in horologio modo [illegible] reducuntur ad horas horologii integri sive illud incipit ab ortu solis sive ab occasu solis [illegible] quod hore equinoctiales sive horologii reducuntur [illegible] in horas inequales sive temporales [illegible] quod quilibet planeta [illegible] et noctis [illegible] [illegible]

Regula secunda [illegible] est hora equinoctialis, hora equalis et hora horologii [illegible] hore equinoctiales spatium [illegible] in quo [illegible] equinoctialis [illegible]

Regula 3a Idem est dicere hora [illegible] planete hora inequalis et hora temporalis vel hora [illegible] est [illegible] in quo [illegible]

Regula quarta Omnes horarum in horologio [illegible] aut a meridie aut a media nocte incipit et [illegible]

Regula quinta aliquod horologium integrum ab occasu solis incipit, aliquod vero ab ortu solis

Regula sexta [illegible] horas in horologio [illegible] a meridie incipiendo ad horas horologii integri ab ortu solis incipiens [illegible] horas horarum integri [illegible] horas modi horarum a meridie incipiendo [illegible] subtrahe tempus semidiurni illius diei [illegible] horarum a meridie incipientium [illegible] Si aut non poteris adde 12 horas et postea subtrahe et [illegible] Exempli gratia [illegible] hora 2a post meridiem ad horarum horarum integri ab occasu incipientes reducere [illegible] tempus semidiurni [illegible] quod est 8 hore 20 minuta [illegible] non potest [illegible] 12 horas et postea subtrahe arcum semidiurnum [illegible] horologii ad horam 2am post meridiem in horologio modo [illegible] 21 minuta [illegible]

Regula 7a [illegible] horas in horologio modo a media nocte incipiente ad horas horarum integri ab ortu incipientis [illegible] semidiurnum illius diei [illegible] a media nocte incipientium [illegible] 12 horas. [illegible] [illegible] horarum integri ab occasu [illegible]

Regula 8a Cum horas modi horologii a media nocte computatas reducere [illegible] ad horas in horologio integro a meridie incipientes ad horas horologii integri quod ab ortu solis incipit [illegible] semidiurnum illius horas modi horologii a media nocte computatas subtrahe [illegible] si non adde 12 horas et [illegible]

Regula ix Cum horas modi horarum a meridie incipientes reducere [illegible] ad horas horologii integri quod ab occasu incipit [illegible] semi nocturnum [illegible] horas superaddite ab horis horarum [illegible] subtrahe et patebit [illegible]

Altera pars canonis quo hore equinoctiales sive horologii reducuntur in horas inequales sive temporales

Regula primam Cum horas equinoctiales sive horarum reducere ad horas inequales sive temporales [illegible] quota hora horarum [illegible] inequali sive temporali primo [illegible] instrumento [illegible] est [illegible]

2a Cum queritur horas diurnas sive [illegible] post meridiem [illegible] [illegible] Cum aut [illegible] volueris horas nocturnas [illegible] per [illegible] semi nocturnum

3a Cum luna [illegible] meridianum [illegible] et meridie [illegible] [illegible] luna a

Regula quarta Cum luna aut arcus diei et arcus noctis [illegible] arcus diei est [illegible]

Regula 5a In hunc instrumento [illegible] semidiurnus [illegible] 8 horarum, et semi nocturnum 4 horarum [illegible] et arcus semi nocturnus 4 horarum

Regula 6a

11

[illegible] duas horas continentur 15 gradus · quadrans vero gradus equinoctialis [illegible] in una hora [illegible] gradus equinoctialis [illegible] in comparacione [illegible] seu minutorum [illegible] vocatur [illegible] equinoctialis [illegible] multiplicando 15 [illegible]

Versus 4m [illegible] horarum [illegible] ante meridiem [illegible] post meridiem [illegible] ad [illegible] alter [illegible] horas [illegible] per [illegible] mediam noctem [illegible] ad quadrantem

Versus 5m In horis inequalibus [illegible] ad [illegible] et [illegible]

Versus 6m In quarta [illegible] sunt hore [illegible] que [illegible] horas planetarum vocantur [illegible] quod [illegible] ad occasum [illegible] [illegible] de inequalitate hora [illegible] de temporalis [illegible] inequalis est [illegible] ut [illegible]

Versus decimum hore [illegible] in estate sunt longiores [illegible] in hyeme [illegible] hora [illegible] duple in estate [illegible] hore [illegible] in hyeme [illegible] ad solem [illegible] horarum [illegible] in estate [illegible] duplum ad [illegible] in hyeme [illegible] hore inequales in estate [illegible] duple [illegible] horarum inequalium in hyeme [illegible]

Canon quo cognoscitur que hora inequalis currens aliqua hore horalogii parte. Versus primum

[illegible] hora [illegible] fuit [illegible] in limbo [illegible]

Versus 2m [illegible] in limbo [illegible] in filo [illegible] horas [illegible] equinoctialis [illegible] ad [illegible] computatis [illegible] inter [illegible] horarum [illegible]

Versus 3m Hore temporales ante meridiem [illegible] hore equinoctiales [illegible] ante meridiem [illegible] temporales [illegible] post meridiem [illegible] hora [illegible] inequalis [illegible] equinoctialis [illegible] horas [illegible] computabis

Versus 4m [illegible] horas inequales planetis [illegible] distribuerunt ut in tabula infra [illegible] in [illegible] almanach [illegible] tabula de planetarum in horis inequalibus [illegible]

Versus 5m [illegible] planetarum [illegible] septimane [illegible]

Versus 6m [illegible] planeta [illegible] in [illegible] planetarum [illegible] domina [illegible] quod [illegible]

Versus ultimum [illegible]

Canon ultimus de noticia horarum equinoctialium ante et post meridiem

Versus primum [illegible] hoc instrumento [illegible] quod [illegible] horas ante meridiem [illegible] per [illegible] instrumenti [illegible]

Versus 2m In primis [illegible] latitudinem [illegible] [illegible] instrumenti

Vm tertium pars hec alia linee aspiciunt descendentis angusti [illegible] quarum spacia distancias [illegible] que linee sunt 12 zodiaci et signorum fines et 30 graduum distinguunt, licet quasi partes signorum in duabus inferioribus lineis equaliter distantibus comprehenduntur. Vm quartum [illegible] linea equaliter distans zone [illegible] et [illegible] quamvis vocatur applicatur, que in illa linea distincta in signa et gradus [illegible] linearum decem [illegible] quod in hac zona sunt sex [illegible] [illegible] sunt [illegible] autem [illegible] sunt [illegible] instrumentum [illegible] gradibus [illegible] et [illegible] signa [illegible] signis sunt [illegible] gradus et representantur. Vm quintum [illegible] scala [illegible] [illegible] est, et per [illegible] inferius [illegible] Super et [illegible] a [illegible] incipit et usque ad [illegible] procedit. [illegible] autem est inferior ab uno incipit et usque ad [illegible] procedit. [illegible] linearum [illegible] ut ad [illegible] aspicitur. Vm sextum [illegible] aspicitur scala [illegible] [illegible] [illegible] [illegible] sub [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] scala [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] appellatur. Vm 1m [illegible] linearum equaliter distancium [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] Vm 2m [illegible] [illegible] [illegible] linea [illegible] ut [illegible] in [illegible] ut in [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] ad [illegible] [illegible] [illegible] est [illegible] [illegible] umbra solis [illegible] et [illegible] ut [illegible] et aliquando [illegible]

Altera pars huius instrumenti docet quo hora ante meridiem et post meridiem ingreditur. Vm primum

[illegible] hec instrumenti [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] vulgo [illegible] appellatur. Vm 2m [illegible] huius instrumenti est, hec [illegible] in [illegible] [illegible] et [illegible] [illegible] [illegible] in [illegible] [illegible] [illegible] [illegible] sunt per meridiem solis [illegible] [illegible] [illegible] [illegible] zonam [illegible] hec est [illegible] poli [illegible] [illegible] in [illegible] [illegible] [illegible] zona ut [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] Vm 3m [illegible] solis [illegible] ad [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] solis in [illegible] poli [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] in quo est sol. Vm 4m [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] poli in [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] ad [illegible] solis [illegible] [illegible] in zona [illegible] Vm 5m [illegible] [illegible] [illegible] signi in zona [illegible] [illegible] solis [illegible] [illegible] in [illegible] [illegible] sunt [illegible] [illegible] [illegible] [illegible] in zodiaco [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] Vm 6m [illegible] zona [illegible] [illegible] [illegible] solis in zona [illegible] [illegible] [illegible] [illegible] Vm septimum [illegible] hec est [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] ut [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] a [illegible] [illegible] in [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] meridiem [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] sunt ante meridiem sunt post meridiem. [illegible] [illegible] [illegible] [illegible] aut [illegible] [illegible] [illegible] Telos. [illegible] [illegible]

Instrumentum horarum inequalium sic conficies

[illegible]

Instrumentum de vero loco lune sic conficies

[illegible]

[illegible]

Circulo signorum de 10 in 10 describes sic. 10. 20. 30. [illegible]

[illegible]

Quadrans horalogii orizontalis sic formatur

[illegible]

[illegible]

III

IV